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# MAMMALIA

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J. E. HILL

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# 19. MAMMALIA

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## I.—TITLES

**In the list of titles the year has been omitted where it is the same as the volume year of the "Record", namely (1959).**

**Opinion 544.** Validation under the Plenary Powers of the family-group names Muntiacinae Pocock, 1923, and Odobenidae (correction of Odobaenidae) Allen, 1880, (Class Mammalia). *Opinion* supplementary to *Opinions* 460 and 467 respectively. Opin. int. Comm. zool. Nom. **20** (11) 1959 : 119–128.

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**Anon.** (2). Observations on the Indian elephant. J. Bengal nat. Hist. Soc. **29** 1958 : 139–145.

**Anon.** (3). Coypu. Bird Notes **29** : 22.

**Anon.** (4). Walvisnieuws 1958. Lutra No. 20 : 205–207.

**Anon.** (5). A "stupendous discovery": the fossil skull from Olduvai which represents "the oldest well-established stone toolmaker ever found." Illustr. Lond. News **235** : 217, 219 6 figs. [12th September, 1959.]

**Anon.** (6). The red deer of the South East Veluwe. Nat. en Landschap **13** : 86–91 3 figs. map. [Dutch, English summary.]

**Anon.** (7). The fossil skull from Olduwai. Brit. med. J. No. 5150 : 487.

**Anon.** (8). Dr. Leakey shows skull of "earliest known" man. Daily Telegraph, Lond. No. 32, 496 : 15.

**Anon.** (9). Skull from the Olduvai Gorge "could lead direct to *Homo*." Dr. L. S. B. Leakey describes new bone discoveries. Times, Lond. No. 54, 586 : 9.

[**Anon.**] (10). [Growth and control of the elk herd.] Priroda No. 6 : 100–102 2 figs. [In Russian.]

**Anon.** (11). White sperm whale taken at Japan. Norsk. Hvalfangsttid. **48** : 18–22 5 figs.

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**Anon.** (15). Capture d'une genette en Seine-et-Oise. Mammalia, Paris **23** : 240–241.

**Anon.** (16). Thirteenth Annual Report—Mammals. Rep. Lowestoft Fld. Cl. **2** : 77–78.

**Anon.** (17). Notes and observations. Trans. Suffolk Nats. Soc. **11** : 193–194.

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**Turkey.**—**Strinati.**

**Spitzbergen.**—**Dineley & Garrett.**

**U.S.S.R.**—**Anon** (10); **Akopyan**; **Berestennikov**; **Dezhkin**; **Faleyeva**; **Gerasimov** (1); **Kiris** (1), (4); **Kryltsov**; **Lavrov** (1), (3); **Mitina**; **Nagornov**; **Polyakov** (1); **Polyakov** & others; **Rashek**; **Semenov** (1); **Sokolov, I. I.** (2); **Sorina**; **Sviridenko**; **Zaleker** (1), (2); N. U.S.S.R., **Chirkova** (1), (3); **Dementyev**; **Shibanov**; W. U.S.S.R., **Kolosov & Shibanov**; E. Carpathians, **Portenko** (1); S. Russia, **Pavlov** & others; **Ismagilov**; Ukraine, **Kirillov**; **Mokeeva & Sholl**; **Sles** (1); Belorussia, **Kurskov**; **Rubin, F.**; **Fomitcheva**; **Krepivny & Lipskaya**; **Petrovsky**; **Samusenko** (1), (2), (3), (4); Georgia, **Enukidze**; **Kokhiya**; **Morgilevskaya**; **Yatsenko**; Klukhorsk region, Georgia, **Shidlovski**; Crimea, **Dal** (1); **Pavlov, M. P.** (2); Caucasus, **Rukovsky**; **Vereshchagin** (1), (2), (4); N. Caucasus, **Pelipeichenko**; Astrakhan, **Krivonosov**; Azerbaidjan, **Aliev, F. F.**; **Safarov**, M. A. (1); Kazakh SSR, **Afanasgev**; **Dubrovski**; **Husainov** (2); **Kidirbaev**; Kazakhstan, **Ivanov, O. A.**; **Mokeeva & Sholl**; **Paraskiv**; **Shubin** (1), (2); Kuban region, **Pavlov, M. P.** (1); Kzylkum, **Krivosheyev**; N. Kyzylkum, **Kulik**; Urals, **Pavlinin & Shvarts**; **Portenko** (2); **Reshetnikov**; Trans-Ural, **Shvarts** & others; Altai, **Tarasov** (2); Uzbekistan, **Beljaeva** (2); **Buliginskaya & Polyakov**; **Dyatlov & Rudenchik**; **Gladkina & Mokeeva**; **Tshunin**; Kirghiz, **Toktosunov**; Tadzhikistan. **Davidov**; Baikal region, **Reimers**; Transbaikalia, **Lavov**; Caspian, **Ivanov, V. V.**; N. W. Caspian, **Pavlov, A. N.**; Tatar A.S.S.R., **Popov**; Turkmenistan, **Bannikov** (1); N. Turkestan, **Burdelov & Rossinskaya**; N. Balkhash, **Burdelov & Rossinskaya**; Mongolia, **Bannikov** (2); **Cewegmid**; **Dagva**; **Mitina**; **Tarasov** (1); **Tsevegmid**; **Vlček**; Inner Mongolia, **Lo** & others; Volga basin, **Panteleiev**; Volga-Kama region, **Aspisov** (1), (2); Vologodsk Prov., **Gribova**; Voronezh, **Barabash-Nikiforov**; **Chirkova** (2); **Kaznevski**; Sverdlovsk Prov., **Zaleker & Poluzadov**; Tajmyr Peninsula, **Sdobnikov**; Archangel Prov., **Semenov** (2), (3); Leningrad Prov., **Altshul**; Lugansk region, **Sakhno**; Kola peninsula, U.S.S.R., **Nassimovich & Semenov-Tian-Shansky**; Kola province, **Novikov**; Kamchatka, **Kaplin**; Siberia, **Kapitonov**; **Makridin**; **Wettstein**; N. Siberia, **Vereshchagin** (5); **Zhdanov**; E. Siberia, **Danilov** (1); **Timofeyev** (1); Yakutia, **Cheremkin**; **Tavrovski** & others; **Tchernyavsky**; **Gryaznukhin**; **Medchinov**; **Tavroski**; Yenisei region, **Kiris** (2); N. Ossetia, **Yatsenko.**

**C. Asia.**—**Bannikov** (1); **Haas** (1); **Porshneva & Shmakova**; **Trumler** (1).

**Tibet.**—**Schäfer, E.**; **Vlček.**

**China.**—**Moore & Tate**; **Tzzo-sin**; N. E. China, **Shaw** & others; **Wang**; **Wu-Pin**; Hainan Island, **Shaw & Wong.**

**Formosa.**—**Zuh-ming.**

**Korea.**—**Whang** (1), (2); **Won & Woo** (1), (2); **Won** & others.

**Japan.**—**Akita**; **Chiba**; **Endo** (1), (2); **Fujiwara** (1), (2), (3), (4); **Imaizumi** (1), (2), (3), (4); **Kamohara**; **Kobayashi**; **Kobayashi & Imaizumi**; **Kuroda, M.**; **Naora** (1); **Nishiwaki** (1); **Nishiwaki & Kamiya**; **Okada**; **Omura**; **Shimoizumi**; **Tachibana**; **Tashiro**; **Terajima**; **Tezuka** (1), (3); **Uchida**; **Wakuri & Kano**; Osaka, **Ikebe & Chiji**; Kurile Is., **Kuroda, M.**; Okinoshima I., off N. Kyushu, **Kuroda & Uchida**; Sakhalin I., **Imaizumi** (2).

**S.W. Asia.**—Palestine, **Dobroruka** (2), (3); **Ehrlich** (2); Lebanon, **Kowalski** (3); Iraq, **Harrison, D. L.** (2); **Hatt**; Persia, **Haltenorth**; **Bubenik, A. B.** (1); Afghanistan, **Aellen** (1).

**North Africa.**—**Dorst** (1); **Hamard**; **Niethammer** (1); Egypt, **Setzer** (1), (2), (3), (4); Algeria, **Dorst & Petter**; **Salez**; Morocco, **Blanc & Petter**; **Brosset**; **Panouse**; Tunis, **Durand & Kchouk**; **Kahmann** (1); Sahara, **Petter & Roche.**

## ORIENTAL REGION

**India.**—**Anon.** (20); **Behura**; **Gee** (1); **Kumar**; **Prakash** (2); **St. Croix**; **Sen, N. N.**; **Talbot**; N. India, **Dang**; Pakistan, **Nath** (2); **Tyndale-Biscoe**; West Pakistan, **Akhtar** (1); Udaipur, **Ali & Santapau** (4); Uttar Pradesh, **Nath** (1); Assam, **Anon** (2); **Burnett**; **Hill, W. C. O.** (2); **Oboussier & Maydell**; Bengal, **Gupta**; Bombay, **Deoras & Gokhale**; Kashmir, **Akhtar** (2); **Cobb**; Nepal, **Gee** (2); Himalayas, **Pora**; **Schäfer, E..**

**Ceylon.**—**Andris**; **Bere** (2); **Deraniyagala** (1), (2); **Novick**; Addu Atoll, Maldive Islands, **Phillips.**

**Burma.**—**Ali & Santapau** (2); **Estes**; **Milton.**

**Siam.**—**Rand, C.**

**Malaya.**—**Ali & Santapau** (1); **Harrison, J. L.** (1), (2); **Hislop.**

**Indonesia.**—**Setyodiwiryo** (2); Java, **Hooijer** (6), (7); **Setyodiwiryo** (1); Borneo, **Harrisson** (2); **Hill, J. E.** (1); **Moore** (1); **Pfeffer**; Sarawak, **Harrisson & Medway**; **Hill, J. E.** (3); **Medway** (3); Sumatra, **Lang** (3).

**Philippines.**—**Hermosura**; **Villegas** & others; **Novick**; Mindoro Island, **Manuel.**

## AUSTRALASIAN REGION

**Australia.**—**Carrick & Costin**; **Chittleborough** (4); **Harrison, J. L.** (3); **Keast** & others; **Main** & others; **Morrison**; **Ratcliffe** (2); **Thompson, H. V.**; **Troughton**; S. Australia, **Cleland**; **Finlayson** (2); W. Australia, **Chittleborough** (2); New South Wales, **Horner & Taylor**; **Lyne** & others; Northern Territory, **Johnson, D. H.**; Queensland, **Pope**; Rottnest I., W. Australia, **Barker & Barker**; **Main** & others; **Shield**; Tasmania, **Guiler**; **Guiler & Banks**; **Finlayson** (1); **Pearson & de Bavay**; New Zealand, **Brockie** (1), (2); **Bull**; **Howard** (1); **Kean**; **Parham**; **Riney** (1), (2); **Riney & Caughley**; **Riney** & others; **Thompson, H. V.**; **Watson**; White Island, **Hamilton & Baumgart**; **Wodzicki & Robertson.**

## ETHIOPIAN REGION

**General.**—**Anon.** (14); **Dandelot**; **Matthey** (2); **Meester** (1); **Meeuse** (1); **Petter, F.** (1); **Spinage** (1); **Swynnerton**; **Verheyen** (2); **Weyers.**

**N.E. Africa.**—Sudan, **Harrison**, D. L. (3); Abyssinia, **Carter**, T. D.; Somalia, **Funaioli**; **Meester** (3); Somaliland, **Ziccardi**.

**East Africa.**—**Spinage** (4); Kenya, **Coe**; **Grainger** & others; **Kulzer**; **Napier & Davis** (1); **Spinage** (3); **Stott**; Uganda, **Appelman**; **Bere** (1); **Bolwig** (4); **Cave & Allbrook**; **Dart** (3); **Donisthorpe**; **Galloway & Allbrook**; **Kinloch**; **Marshall & Corbet**; **Scott**; **Spinage** (2); **Stott & Selsor**; Tanganyika, **Ansell** (2); **Chapman** & others; **Grzimek** (2); **Kulzer**; **Ullrich** (2); Mafia Is., Tanganyika, **Savory**.

**Rhodesia.**—**Aitken-Cade**; **Critchley**; **Harrison**, D. L. (3); North Rhodesia, **Ansell** (1); **Maberly**; Bechuanaland, **Harrison**, D. L. (3); Barotse Protectorate, **Ansell** (3).

**Southern Africa.**—**Bolwig** (1), (3); **Meester** (2); **Rudebeck**; **van Bruggen** (1), (2); **van der Merwe**; **Wells** (3); Cape Province, **Rand**, R. W.; Kalahari Gemsbok Park, **Eloff**; **Leistner**; Transvaal, **Dart** (4); Kruger National Park, **van der Schijff**; Mozambique, **Frade** (2); Nyasaland, **Ansell** (2); S. W. Africa, **Hoesch**.

**Belgian Congo.**—**Ansell** (2); **Backhaus** (1), (4); **Berghe**, L. van den; **Bolwig** (4); **Haezaert**; **Hopwood & Misonne**; **Kayumba**; **Misonne**; **Novick**; **Poll**; **Rahm**; **Verheyen** (1), (3), (4).

**Central Africa.**—**Heim de Balsac**.

**West Africa.**—Cameroons, **Eisentraut**; French Cameroon, **Aellen** (2); **Pfeffer** (2); French Equatorial Africa, **Blancou**; **Petter**, F. (2); Ghana, **Harris & Baker**; Ivory coast, **Aellen** (2); **Cadenat** (2); **Cadenat & Lassarat**; French West Africa, **Blancou**; French Guinea, **Guth** & others; Senegal, **Cadenat** (1), (2); **Cadenat & Doutre**.

**Madagascar.**—**Meyer** & others; **Petter**, F. (3); Comoro Islands, **Harrison**, D. L. (1).

## NEARCTIC REGION

**General.**—**Anderson** (2); **Burt**; **Butcher**, D.; **Churcher** (2); **Davis**, W. H. (2); **Hagmeier**; **Hall & Kelson**; **Heald**; **Koford**; **McKnight**; **Savage**; **Van Gelder** (3); **Wright**, B. S.; **Young**.

**Canada.**—Ontario, **Bendell**; **Holling**; **Reynolds & Stinson**; Magdalen Islands, Quebec, **Myers**; Newfoundland, **Cameron**; **Sergeant** (2); Islands of St. Lawrence Gulf, **Cameron**; Nova Scotia, **Benson**; New Brunswick, **Jackson**, H. H. T.; Manitoba, **Sutton**; Saskatchewan, **Nero**; Alberta, **Rowan & Keith**; **Banfield**; N. W. Canada, **Jolicoeur**; Northwest Territories, **Flook**; British Columbia, **Carl & Guiguet**; **Edwards & Ritcey**.

**U.S.A.**: **General**—**Blond**; **Coolidge**; **Mech**; U.S.A., southern States, **Blair** (1); N. W. North America, **Johnson & Ostenson**.

**Eastern U.S.A.**—**Davis**, W. H. (2); **Stenlund** (2); **Paradiso**; New York, **Barbehenn**; **New** (1), (2); **Seidel**; **Smith**, R. L.; New Jersey, **Connor**; **Pearson**, P. G.; **Woolfenden**; Connecticut, **Hirth**; Maryland, **Gould**; Massachusetts, **Hart & Irving**; **Sheldon**; Pennsylvania, **Doutt & Donaldson**; **Guilday & Bender**; **Orr**, H. D.; Virginia, **Davis**, W. H. (1); **Paradiso**; **Reeves**; Maine, **Geagan**; Florida, **Arata** (1); **Bader** (1); **DeWitt Ivey**; **Layne** (3); **Layne & Redmond**; **Loveless & Harlow**; **McKeever** (1); Georgia, **McKeever** (1); **Smalley**.

**Middle U.S.A.**—Tennessee, **Schultz** (1), (2); Missouri, **Conaway**; **Parmalee & Jacobson**; Michigan, **Bookhout**; **Golley & Whitmoyer**; **Pruitt** (2); Wisconsin, **Christensen**; **Conaway**; **LoBue & Darnell**; **Morrison & Ryser**; Ohio, **Dexter**; **Goslin**; Indiana, **Conaway**; Alabama, **Allen**; **Dusi**; **Havugen**; Iowa, **Kline**; Idaho, **Adams & Adams**; **Buss**; **Van Gelder** (1); Illinois, **Hoffmeister**, D. H.; **Layne** (1); **Lord**; **Wetzel**; Minnesota, **Clough**; **Davis & Beer**; **Gunderson**; **Hoover** (1); **Stenlund** (1).

**Western U.S.A.**—Texas, **Blair** (2); **Box**; **Cutter** (1), (2); **Glass & Morse**; **Herreid** (1), (2); **Hunsaker** & others; **Hunt**; **Jones & Hettler**; **Kennerly**; **McCarley** (1), (2), (3); **Milstead & Tinkle**; **Raun**; **Stallcup**; Dakota, **Hibbard**, E. A.; Arkansas, **Conaway**; Nebraska, **Jones & Vaughan**; Montana, **Adams**; **Manville** (1); **Taber**; **White**; Utah, **Rasmussen & Chamberlain**; **Robinette & Jones**; Kansas, **Bronson & Tiemeier**; **Clarke** & others; **Janes**; **Stains & Baker**; **Twente**; Oklahoma, **Glass**; **Glass & Morse**; **Glass & Ward**; **Halloran & Glass**; **Urban & Wimmer**; Colorado, **Anderson** (1); **Beidleman & Long**; **Finley**; **Hansen & Miller**; **Harrington**; **Neff**; **Williams**, O. (1); Nevada, **Adams & Adams**; Wyoming, **Altmann**, M.; **Halloran & Blanchard**; **Laycock**; **Negus & Findley**; **Williams**, O (1); Arizona, **Cockrum & Ordway**; **Hanson**; **Hoffmeister**, D. F. (3); **Lange** (1), (2); **Lange & Mikita**; **Neal**; **Woolsey**; New Mexico, **Commissaris**; **Findley**; **Packard**; **Sands & Findley**; **Tamsitt**; California, **Adams & Adams**; **Bartholomew & Hudson**; **Bentley**, W. W.; **Chew** & others; **Constantine** (1); **Cook**; **Cunningham**; **Howard** (1), (3); **Huey** (1); **Ingles** (1); **Lechleitner**; **Orr**, R. T.; **Pearson**, O. P.; **Prescott**; **Roest** & others; **Weaver** & others; Santa Rosa Island, California, **Orr**, P. C.; Oregon, **Gashwiler**; Washington, **Buss & Solf**; **Ogilvie & Furman**; **Hudson & Solf**.

**Alaska.**—**Bartholomew**; **Cahalane**; **Coolidge**; **Crisler**; **Daetz**; **Hansen**; **Libby**; **Mitchell**; **Musacchia & Hamilton**; **Pitelka**; **Sonnenfeld**; Alaska Peninsula, **Murie**; Aleutian Is., **Coolidge**; **Murie**; Amchitka I., Aleutian Is., **Kenyon**; Pribilof Is., **Wyndham**.

**Mexico.**—**Alvarez**; **Constantine** (2); **Goodwin** (1), (2), (3); **Hoffmeister**, D. F. (1); **Hoffmeister & de la Torre** (1); **Ingles** (2); **Koopman & Martin**; Sonora, **Villa**, R.; Tres Marias Is., Mexico, **Van Gelder** (2).

## NEOTROPICAL REGION

**General.**—**Cabrera**; **Goodwin** (4); **Handley** (1); **Hershkovitz** (1).

**C. America and West Indies.**—C. America, **Van Gelder** (3); Panama, **Handley** (1); Isla Escudo de Veraguas, Panama, **Handley** (1); Barro Colorado Is., Panama, **Altmann**, S. A.; Antilles, **Paulian**; West Indies, **Gilmore**; **Koopman**; Bahama Is., **McKinley**; Dominica, **Rabb** (2); Trinidad, **de la Torre**; **Goodwin** (3).

**South America.**—**Bickel**; **Hershkovitz** (6); **Hill**, W. C. O. (5); **Pires**; **Schäuffelen**; **Schneider-Leyer**; **Street**; British Guiana, **Hershkovitz** (3); French Guiana, **Hershkovitz** (6); Surinam, **Husson** (1); Venezuela, **Husson** (1); Colombia, **Hershkovitz** (5); Bolivia, **Crespo** (1); **Hershkovitz** (4); Brazil, **Carvalho**; **Hershkovitz** (3), (6); **Moojen**; **Moore & Tate**; **Vanzolini**; Peru, **Didier**; **Dorst** (2); **Hershkovitz** (4); **Sanchez**; Paraguay, **Hershkovitz** (3); Argentina, **Hershkovitz** (3); **Crespo** (2); Patagonia, **Reig** (3); Chile, **Mann**.

## OCEANS, SEAS AND OCEANIC ISLANDS

**General.**—**Halstead**; **Marlow**; Antarctic, **Brown**, S. G. (2); **Chittleborough** (3); **Holm & Jonsgård**; **Jonsgård** (1); **Kulikov & Ivashin**; **Péwé** & others; **Pugh**; **Purves & Mountford**; **Ruud & Oynes**; **Williamson**; Arctic, **Østby**; Atlantic, **Brown**, S. G. (1), (3); **Cadenat** (1); **Loughrey**; **S.**; N. Atlantic, **Davies**; **Jonsgård & Long**; N. W. Atlantic, **Sergeant** (2); S. Atlantic, **Aretas**; **King** (1); **King** (2); Pacific, **Fink**; **Hubbs**; **Kenyon**; **Nasu**; N. Pacific, **Anon.** (11); **Brooks**; **Davies**; **Nishiwaki** (2); N.W. Pacific, **Kuroda**, N.; S. Pacific Ocean, **Chittleborough** (1); **Dawbin** (2); Southern hemisphere, **Laws** (3); Gulf of Mexico,

**Caldwell & Fields**; Irish Sea, **Johnson**, A. L.; North Sea, **Utrecht**; Gough Island, **Hill**, J. E. (2); **Holdgate**; Hawaii, **Uloth** (2); **Kenyon & Rice**; **Svihla**; Kerguelen Is., **Estève**; Tristan da Cunha, **Hill**, J. E. (2); Wake Island, **Bryan**.

GEOLOGICAL (FOSSIL FAUNAS)

**General.**—N. Bavaria, **Rutte**; Caucasus, **Vereshchagin** (4); Texas, **Bader & Techter**; S. America, **Reig** (1).

**Rhaetic.**—Glamorgan, **Kermack & Mussett** (2).

**Jurassic.**—Gt. Britain, **Kermack & Mussett** (2).

**Triassic.**—Gt. Britain, **Kermack & Mussett** (2).

**Mesozoic.—Simpson** (1).

**Tertiary.**—Europe, **Remane**; Austria, **Zapfe**; Czechoslovakia, **Zapfe**; Eurasia, **Gabuniya**, L. K.; Caucasus, **Vereshchagin** (3); Africa, **Remane**; California, **Alf.**

**Palaeocene.**—France, **Russell**, D. E.; New Mexico, **Simpsen** (4).

**Eocene: Old World.**—**Wood** (2); Spain, **Crusafont Pairó** (1); Maritime Province, U.S.S.R., **Beliajeva** (1); Mongolia, **Danilova**; **Gromova** (1), (2); Kiangsi, **Chow**, M.-C. (4); Sinkiang, **Chow**, M.-C. (3); Honan, **Chow**, M. (2); Pakistan, **Dehm & Oettingen-Spielberg.**

**Eocene: New World**; **Wood** (2); N. America, **Gazin**; Wyoming, **McGrew** & others; **McKenna & Simpson**; **Simpson** (3), (5); **Wood** (3); Alberta, **Russell**, L. S..

**Oligocene.**—W. Europe, **Erdbrink**; Spain, **Crusafont Pairó** (1); Germany, **Rothausen**; Bavaria, Germany, **Berger**; Austria, **Spillman**; Maritime Province, U.S.S.R., **Beliajeva** (1); Mongolia, **Gromova** (1); **Trofimov** (2); Sinkiang, **Chow & Xu**; Yunnan, **Chow**, M.-C. (2); **Chow & Hu**; Japan, **Yabe**; Egypt, **Simons**; N. America, **Toohey**; Oregon, **Brown**, R. W.; S. America, **Wood & Patterson**; Santa Cruz and Chubut, Argentina, **Wood & Patterson.**

**Miocene: Old World.**—W. Europe, **Erdbrink**; France, **Ginsburg**; **Mein**; S. W. France, **Astre** (1); **Crouzel**; Spain, **Crusafont Pairó** (1), (2); Austria, **Mottl**; Ukraine, **Korotkevich** (1), (2); **Pidoplichko**; Caucasus, **Dzhafarov**; **Gabuniya**, L.; Kazakhstan, **Baschanov**; Mongolia, **Godina**; Sinkiang, **Chow**, M.-C. (3); **Chow & Xu**; Japan, **Yabe**; Cyrenaica, **Erasmo**; **Petrocchi**; Kenya, **Ferembach**; **Napier & Davis** (2).

**Miocene: New World.**—N. America, **Toohey**; S. Dakota, **Green** (1); Nebraska, **Hoffmeister**, D. F. (2); Florida, **Kellogg**; **Olsen** (2), (3), (4).

**Pliocene: Old World.**—Spain, **Crusafont Pairó** (1); **Villalta & Crusafont-Pairó**; Italy, **Butler & Mills**; **Hürzeler** (1), (2); Czechoslovakia, **Musil** (1); Poland, **Stach**; **Sulimski**; Ukraine, **Topachevsky** (2); Caucasus, **Gabuniya**, L.; Crimea, **Kurilov**; Shansi, **Chow**, M.-C. (1); **Pei**; Honan, **Liu & Chow**; Sinkiang, **Chow**, M.-C. (3); Japan, **Iwai**; **Matsumoto** & others; Cyrenaica, **Leonardi** (1); **Petrocchi**; Algeria, **Bergounioux & Crouzel** (2); Borneo, **Koenigswald** (1).

**Pliocene: New World.**—N. America, **Shotwell**; Texas, **Shotwell**; S. Dakota, **Green** (2); Idaho, **Hibbard**, C. W.; Oklahoma, **Kitts & Black**; Kansas, **Stephens**; Nevada, **Macdonald**; **Macdonald & Pelletier**; Wyoming, **Hibbard**, C. W.; Oregon, **Shotwell**; Florida, **Olsen** (1); Argentina, **Castellanos**; **Reig** (2); **Rusconi** (1), (2), (3).

**Pleistocene: General.—Gromov**; **Howell** (2); **Le Gros Clark** (2); **Richard**, L. (1).

**Old World: Europe.—Haltenorth**; **Herre**; **Friant** (2), (4); **Schaefer**; W. Europe, **Friant** (5); Devonshire, Gt. Britain, **Friant** (1); Sutherland, **Hansen**, W. J.; Ireland, **Uhlenhaut**; France, **Astre** (4); **Dechaseaux** (1); **Gales**; **Leclercq**; S.W. France, **Astre** (2), (3); **Bouchud**; Pyrenees, **Koby**; Spain, **Meléndez & Aguirre**; Holland, **Erdbrink**; **Feen**; **Hooijer** (1), (8); **Jux & Rosenbauer**; **Sluijs** (1), (2); Italy, **Maini** (1), (2); **Vialli**; **Vialli & Pizzochero**; Lombardy, **Ronchetti**; Sicily, **Accordi**; Germany, **Brunner** (1), (2), (3); **Dietrich**; **Ehrenberg**; **Kahlke** (1); **Kuss**; **Jux & Rosenbauer**; **Siegfried**; Austria, **Thenius** (1); Yugoslavia, **Adam**; **Rakovec** (1), (2); **Thenius** (2); Roumania, **Macarovici**; **Necrasov & Haimovici**; Czechoslovakia, **Musil** (2); Greece, **Mitzopoulos**; Poland, **Kowalski** (4); **Kubasiewicz**; **Schaub & Kowalski**; **Zielinski.**

**Near East.—Reed**; Anatolia, **Senyurek.**

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†*Miocnus* Matthew, 1919 a synonym of *Acratocnus*, **Paula Couto** in **Matthew & Paula Couto.**

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†*Canis* Pleistocene, Japan, large molar descr., measured, **Saito;** *C.* sp. Pleistocene, Peru descr., measured, **Churcher (1);** *C. lupus, C. latrans* Pleistocene, California, skull descr., measured, fig'd., **Graham;** *C. l. apsheronicus*

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†*Cuon javanicus sinhaleyus* **subsp. nov.** Pleistocene, Ihala Minuvandeniya, Gōnapitiya, Kuruvita, Ceylon, p. 84, **Deraniyagala (4)**.

†*Hemicyon vincenti* **sp. nov.** Miocene, Mont Ceindre, Saint-Cyr, near Lyon, France, p. 35, **Mein.**

*Lycaon pictus* behaviour in captivity, **Sosnovski**; general account, **van der Merwe.**

*Nyctereutes* skull, vertebral column descr., detailed discussion of taxonomic position, **Frechkop (4)**; *N. procyonoides* distribution in Roumania, **Almeshan & Khamar**; marking behaviour, **Heimburger**; *N. p. ussuriensis* innervation of adrenals, **Tcheng.**

†*Osteoborus* possible footprint from Tertiary of California, **Alf.**

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†*Urocyon seminolensis* Pleistocene, Florida, re-appraisal of characters, considered a synonym of *U. cinereoargenteus*, **Arata (2)**.

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†*Arctotherium latidens*, *A. angustidens* descr., compared, illustr., Pliocene, Argentina, **Rusconi (1)**.

†*Indarctos nevadensis* **sp. nov.** Pliocene, Upper Petrified Canyon, Smiths Valley, Nevada, p. 877, **Macdonald.**

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†*Ursus* sp. nov. unnamed, Pleistocene, S. China, descr., **Pei & Li.**; *U. arctos* Pleistocene (?), Sutherland, recorded, **Hansen, W. J.**; Pleistocene, Japan, descr., measured, illustr., **Shikama & Okafuji**; *U. deningeri* Pleistocene, France, material descr., discussion, **Astre (3)**; *U. kamiensis* Lower Kama, *U. karmalkiensis* Middle Karmalk, both **spp. nov.**, Pleistocene, Tatar, Caucasus, p. 400, **Vereshchagin (4)**; *U. spelaeus* mandibular characters, **Friant (4)**; Pleistocene, Poland skeletal fragments descr., fig'd., **Kubasiewicz**; first record Pleistocene of Greece, **Mitzopoulos**; Pleistocene, Czechoslovakia, teeth descr., fig'd., **Musil (2)**; Pleistocene, France, cranial pathology, **Pales**; descr., illustr. from Pleistocene of Yugoslavia, **Rakovec (2)**.

†*Ursus* (*Euarctos*) *mediterraneus* molar tooth from Pleistocene of Yugoslavia descr., illustr., taxonomic and phylogenetic review of small bears, **Thenius (2)**.

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*Ailuropoda melanoleuca* popular illustr., account, **Haas (3)**.

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*Nasua nasua nasua* Linnaeus, 1766 synonymy, type locality restricted to Pernambuco, Brazil, remarks: *N. mondé*, *N. obfuscata*, *N. minor; Mustela lanata* all Olfers, 1818, synonyms; *N. n. spadicea* Olfers, 1818 a valid name, type locality designated as Paraguay, synonymy; *N. squash* Olfers, 1818 a nomen nudum, **Hershkovitz (1)**.

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†*Baranogale helbingi* Pleistocene, Poland, mandibular fragment descr., illustr., discussion, **Kowalski (4)**.

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†*Mustela pliocaenica*, p. 102, *M. pliocerminea*, p. 107, both **ssp. nov.** Pliocene, Weze, near Dzialoszyn, Lodz, Poland, **Stach.**

†*Plesiogulo* sp. Pliocene, N. Caucasus, upper molar descr., fig'd., **Gabuniya.**

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†*Serridentinus* Miocene, Sinkiang, molar descr., illustr., **Chow,** M.-C. **(3).**

†*Trilophodon angustidens, T. a. minor, T. a. gaillardi, T. a. imperfecta* Miocene, France, additional material descr., **Crouzel;** *T. olisiponensi pygmaeus* Pliocene, Algeria, molar descr., figd., **Bergounioux & Crouzel (2).**

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†*Mammut* (*Pliomastodon*) *nevadanus* Pliocene, Nevada, cranium descr., figd., **Macdonald.**

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†*Elephas* Pleistocene, Japan, tusk descr., illustr., **Ozaki**; *E.* sp. additional material descr., illustr., from Pleistocene of Spain, **Meléndez & Aguirre**; *E. antiquus, E. primigenius, E. meridionalis E. trogontherii* Pleistocene, Italy, descr., figd., **Vialli & Pizzochero**; *E. antiquus, E. trogontherii, E. primigenius* Pleistocene, W. Europe, characters and races reviewed, synonymies: list of principal geological deposits, **Friant (5)**; *E. a. italicus* Pleistocene, Italy, tusk descr., figd., **Maini (2)**; *E. atlanticus* Pleistocene, Morocco tusk descr., measured, **Ennouchi (1)**; *E. maximus sinhaleyus* Pleistocene, Ceylon, detailed review, **Deraniyagala (4)**; *E. meridionalis* Pleistocene, France endocranial casts descr., figd., **Dechaseaux (1)**; *E.* cf. *namadicus* Pleistocene, N. China additional material descr., illustr., **Pei** & others; *E. planifrons groznensis* **subsp. nov.** Pleistocene, Artemovo, Groznenskoye, Caucasus, p. 254, **Sherstyukowi**.

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†*Loxodonta* (*Palaeoloxodon*) *tokunagai junior* Pliocene, Japan, tusk and part molar descr., illustr., measured, **Matsumoto** & others.

†*Mammonteus primigenius* Pleistocene, S. France descr., compared, discussion, **Astre (4)**; sexual dimorphism indicated in lower jaws, **Korniets (1)**; Pleistocene, Germany, skeleton descr., figd., **Siegfried**; *M. p., M. trogontherii* Pleistocene, U.S.S.R., teeth, some skeletal remains descr., figd., **Ponosov**.

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†*Hemionus hemionus fossilis* Pleistocene, Germany descr., illustr., **Dietrich**; *H. kiang sinensis* **subsp. nov.** Pleistocene, "Basin of Sjara-Osso-Gol" (Tributary of Hoang-Ho), N. China, p. 23, **Trumler (1)**.

†*Hipparion* geological dating in Kazakhstan, **Baschanov**; *H.* sp. Pliocene, Shansi, China, descr., figd., **Pei**; *H. garedzicum* nom. nud. p. 41, **Vereshchagin (4)**; *H. periaricanum*, *H. gromovae* both **spp. nov.** Pliocene, Spain, **Villalta & Crusafont-Pairo.**

*Microhippus tafeli* Matschie, 1922 a synonym of *Hemionus kiang holdereri* Matschie, 1911, **Trumler (1)**.

†*Nannippus* cf. *gratus* Pliocene, Oklahoma, teeth descr., figd., **Kitts & Black.**

†*Onager altidens*, *O. littoralis* additional material descr., illustr., measured: *O. zoyatalis* p. 422, *O. arellanoi* p. 424, Pleistocene, Arroyo del Cedazo, Aguascalientes, Mexico, **spp. nov., Mooser Barendun.**

†*Onager* (*Hesperohippus*) *hibbardi* p. 428, Arroyo del Cedazo, *O.* (*H.*) *oviedoi* p. 433, Arroyo de San Francisco, both Pleistocene, Aguascalientes, Mexico, **spp. nov., Mooser Barendun.**

†*Orohippus* descr., from Eocene of Wyoming, **McGrew** (in **McGrew** & others).

†*Parabrontops lunanensis* **sp. nov.** Oligocene, Anjentsen, Lunan, Yunnan, China, p. 85, **Chow & Hu**; *P. lunanensis* nom. nud. Oligocene, Yunnan, p. 263, **Chow & Hu** in **Chow**, M.-C. **(2)**.

†*Pliohippus* cf. *spectans* Pliocene, Nevada, teeth descr., figd., **Macdonald.**

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†*Telmatherium cultridens* partial skull from Eocene of Wyoming descr., **McGrew** (in **McGrew** & others).

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†*Ancylotherium* sp. additional material from Miocene of Ukraine descr., figd., **Pidoplichko.**

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†*Teleolophus* (?) *daviesi* **sp. nov.** Eocene, Ganda Kas, 10½ km. N.W. of Basal, near Rawalpindi, N.W. Pakistan, p. 24, **Dehm & Oettingen-Spielberg.**

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†*Lophialetes* cf. *expeditus* Eocene, Sinkiang, descr. illustr., **Chow**, M.-C. **(3)**.

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†*Tapirus* record from Pleistocene of Borneo, **Harrisson (1)**; *T. veroensis* Pleistocene, Florida, teeth measured, **Holman.**

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†*Cadurcodon ardynensis* Oligocene, Mongolia additional material descr., discussed, **Gromova (1)**.

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†*Aceratherium filholi* Miocene, France, canine tooth descr., **Astre (1)**; *A. G. ghadzhievi* p. 25, *A. D. ghadzhievi* p. 29 both **spp. nov.** Miocene, Eldar Steppes, approximately 1–1.5 kilometres N.E. of the Gruzian monastery of Natlis-Mtsmeli about 20 kilometres N. of Karayaz railway station, Caucasus, **Dzhafarov.**

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†*Ceratotherium simum* subsp. Pleistocene, Transvaal, teeth descr., figd., **Hooijer (3)**.

†*Chilotherium sarmaticum* **sp. nov.** Miocene, Berislav, Kherson region, Ukraine, p. 1372, **Korotkevich (1)**.

†*Coelodonta antiquitatis* Pleistocene, N. China, additional material descr., illustr., **Pei** & others; maxillary teeth descr., figd., discussed, **Friant (2)**; Pleistocene, Manchuria, account of new discovery, **Jernakov & Ponosov.**

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†*Diceros bicornis* subsp. Pleistocene, Transvaal, teeth descr., illustr., **Hooijer (3)**.

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†*Indricotherium* taxonomy disc., *I.* cf. *grangeri* Oligocene or Miocene, Sinkiang, teeth descr., figd., **Chow & Xu;** *I. parvum* **sp. nov.** Oligocene, Lunan, Yunnan, China, p. 264, **Chow (2).**

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†*Rhinoceros sinhaleyus*, *R. kagavena* Pleistocene, Ceylon, key, detailed review, **Deraniyagala (4).**

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†*Teleoceras* molar from Miocene of Cyrenaica descr., illustr., **Erasmo.**

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